

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-NM-243-AD; Amendment 39-13397; AD 2003-26-01]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-100, -200, -200C, -300, -400, and -500 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to all Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This action requires a one-time general visual inspection to identify the material of the rudder assembly, and corrective actions, if necessary. For airplanes with a graphite assembly, this action requires repetitive general visual inspections of the flange bolts of the rudder front spar for any loose bolts, and corrective actions, if necessary. This action is necessary to detect and correct loose bolts common to the flange of the rudder front spar and main thrust hinge and actuator assembly, as well as the auxiliary actuator support fitting, which could cause the rudder actuator to separate from the rudder during certain flight conditions, resulting in loss of rudder control and consequent loss of control of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective January 7, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 7, 2004.

Comments for inclusion in the Rules Docket must be received on or before February 23, 2004.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2003-NM-243-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2003-NM-243-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, PO Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6440; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: The manufacturer, Boeing, has advised the FAA that it received two reports of loose bolts common to the flange of the rudder front spar and main thrust hinge and actuator assembly, as well as auxiliary actuator support fitting, on Boeing Model 737 series airplanes. In the first case, no additional damage was reported. In the second case, the holes common to the flange of the rudder front spar had become elongated and were repaired using oversized bolts.

Boeing has notified us that it has received nine additional reports of loose flange bolts. In all of the reported cases (including the original two), the rudders had a graphite spar. The airplanes on which the loose flange bolts were found had between 7,246 and 45,312 total flight hours and between 7,846 and 35,362 total flight cycles. The cause of the loose flange bolts has not yet been determined.

Loose bolts common to the flange of the rudder front spar and main thrust hinge and actuator assembly, as well as the auxiliary actuator support fitting, could cause the rudder actuator to separate from the rudder during certain flight conditions. This condition, if not detected and corrected, could result in loss of rudder control and consequent loss of control of the airplane.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 737-55A1087, dated October 2, 2003, which describes procedures for performing a one-time general visual inspection of the rudder assembly to determine if an aluminum/fiberglass rudder assembly, or, if a graphite rudder assembly, part number 65C27234-() or 65C25841-(), is installed; performing repetitive general visual inspections of the flange bolts (Stage 1); and corrective actions, if necessary. The corrective actions include retorquing or replacing the flange bolts as necessary, and contacting Boeing for certain conditions.

The alert service bulletin also describes additional Stage 2 and Stage 3 repetitive flange bolt inspections for certain airplanes.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design registered in the United States, this AD requires accomplishment of the actions specified in the alert service bulletin described previously, except as discussed below.

Interim Action

This is considered to be interim action. We are continuing to investigate the cause of the loose flange bolts. Once the cause and final action have been identified, we may consider further rulemaking. We are, however, currently considering further rulemaking to supersede this AD to require the Stage 2 and Stage 3 repetitive inspections described in the alert service bulletin. Should we determine that those inspections are necessary, the planned compliance time would allow enough time to provide notice and opportunity for prior public comment.

Differences Between This AD and the Alert Service Bulletin

Operators should note that Boeing Alert Service Bulletin 737-55A1087, dated October 2, 2003, specifies inspections in addition to those required by this AD. As stated above, this AD does not require the Stage 2 and Stage 3 repetitive inspections because the planned compliance time for those inspections would allow enough time to provide notice and opportunity for prior public comment.

Additionally, for any aluminum/fiberglass rudder assembly having an identification plate indicating a graphite assembly, or for any graphite rudder assembly having an identification plate indicating an aluminum assembly, the alert service bulletin specifies to contact Boeing for appropriate action. This AD requires operators to contact us, or a Boeing Company Designated Engineering Representative who has been authorized by us to make such findings.

Although the Work Instructions of the alert service bulletin recommend that operators report inspection findings of any loose flange bolt to the manufacturer, this AD does not require operators to submit those inspection findings.

Explanation of Compliance Time for One-time Inspection

Operators should note that the compliance time for accomplishment of the one-time inspection of the rudder assembly to identify the material of the rudder assembly and front spar and the initial Stage 1 repetitive flange bolt inspection required by this AD is 120 days after the effective date of this AD. In developing an appropriate compliance time for this AD, we considered not only the manufacturer's recommendation, but also the degree of urgency associated with addressing the subject unsafe condition, the significant impact on scheduling and cost for the large fleet of airplanes which must be inspected, and adequate time and availability of facilities for safe and accurate accomplishment of the inspection. In light of all of these factors, we find a 120-day compliance time for doing the flange bolt inspection to be warranted in that it represents an appropriate interval of time allowable for affected airplanes to continue to operate without compromising safety.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2003-NM-243-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-26-01 Boeing: Amendment 39-13397. Docket 2003-NM-243-AD.

Applicability: All Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct loose bolts common to the flange of the rudder front spar and main thrust hinge and actuator assembly, as well as the auxiliary actuator support fitting, which could cause the rudder actuator to separate from the rudder during certain flight conditions, resulting in loss of rudder control and consequent loss of control of the airplane; accomplish the following:

One-Time Inspection

(a) For Groups 1, 2 and 3 airplanes, as listed in Boeing Alert Service Bulletin 737-55A1087, dated October 2, 2003: Within 120 days after the effective date of this AD, perform a one-time general visual inspection of the rudder assembly to determine if an aluminum/fiberglass rudder assembly (Group 1 airplanes), or, if a graphite rudder assembly, part number 65C27234-() or 65C25841-() (Group 2 and Group 3 airplanes) is installed; per the Work Instructions of Boeing Alert Service Bulletin 737-55A1087, dated October 2, 2003.

Note 1: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

(b) If an aluminum/fiberglass assembly is found: No further action is required by paragraph (c) of this AD.

Stage 1—Repetitive Flange Bolt Inspections

(c) If a graphite assembly is found: Within 120 days after the effective date of this AD, perform a general visual inspection of the flange bolts in the main thrust hinge and actuator assembly, as well as the auxiliary actuator support fitting to detect loose bolts, per "Stage 1—Repeat Flange Bolt Inspection" of the Work Instructions of Boeing Alert Service Bulletin 737-55A1087, dated October 2, 2003.

(1) If no loose flange bolt is found: Repeat the inspection required by paragraph (c) of this AD at intervals not to exceed 1,500 flight cycles or 2,000 flight hours, whichever occurs first.

(2) If any loose flange bolt is found: Before further flight, do the applicable corrective actions by accomplishing all actions specified in paragraphs 4. and 5. of "Stage 1—Repeat Flange Bolt Inspection" of the Work Instructions of the alert service bulletin. Thereafter, repeat the inspection required by paragraph (c) of this AD at intervals not to exceed 1,500 flight cycles or 2,000 flight hours, whichever occurs first.

(d) For any aluminum/fiberglass rudder assembly having an identification plate indicating a graphite assembly, or for any graphite rudder assembly having an identification plate indicating an aluminum assembly, and the alert service bulletin specifies to contact Boeing for appropriate action: Prior to further flight, contact the Manager, Seattle Aircraft Certification Office (ACO), FAA; or a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings.

Parts Installation

(e) As of the effective date of this AD, no person may install on any airplane a rudder assembly having part number 65C27234-() or 65C25841-(), unless it has been inspected per paragraph (c) of this AD.

Information Submission

(f) Although the service bulletin referenced in this AD specifies to submit inspection findings to the manufacturer, this AD does not include such a requirement.

Alternative Methods of Compliance

(g) In accordance with 14 CFR 39.19, the Manager, Seattle Aircraft Certification Office (ACO), FAA, is authorized to approve alternative methods of compliance (AMOCs) for this AD.

Incorporation by Reference

(h) Unless otherwise specified in this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 737-55A1087, dated October 2, 2003. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, PO Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(i) This amendment becomes effective on January 7, 2004.

Issued in Renton, Washington, on December 12, 2003.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-31273 Filed 12-22-03; 8:45 am]

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